

POSITION DESCRIPTION

School of Electrical, Mechanical and Infrastructure Engineering
Melbourne School of Engineering

Senior Lecturer / Associate Professor in Geomatics

POSITION NO	0048888
CLASSIFICATION	Senior Lecturer (Level C) or Associate Professor (Level D)
SALARY	\$126,128 - \$145, 431 p.a. (Level C) \$151, 868 - \$167, 312 p.a. (Level D) Appointment based on qualifications and experience
SUPERANNUATION	Employer contribution of 17%
EMPLOYMENT TYPE	Full-time continuing position available The Melbourne School of Engineering is strongly committed to supporting diversity and flexibility in the workplace. Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position.
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers , under 'Job Search and Job Alerts', select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Prof Stephan Winter Tel +61 3 8344 7875 Email winter@unimelb.edu.au

Please do not send your application to this contact

For information about working for the University of Melbourne, visit our websites:
about.unimelb.edu.au/careers
joining.unimelb.edu.au

The University of Melbourne

Established in 1853, the University of Melbourne is a public-spirited institution that makes distinctive contributions to society in research, learning and teaching and engagement. It's consistently ranked among the leading universities in the world, with international rankings of world universities placing it as number 1 in Australia and number 32 in the world (Times Higher Education World University Rankings 2019).

To discover more about the University's strategy, *Growing Esteem*, visit:

<https://about.unimelb.edu.au/strategy/growing-esteem>

Melbourne School of Engineering

The Melbourne School of Engineering (MSE) has been the leading Australian provider of engineering and IT education and research for over 150 years. We are a multidisciplinary School organised into three key areas; Computing and Information Systems (CIS), Chemical and Biomedical Engineering (CBE) and Electrical, Mechanical and Infrastructure Engineering (EMI). MSE continues to attract top staff and students with a global reputation and has a commitment to knowledge for the betterment of society.

Our ten-year strategy, MSE 2025, is our School's commitment to bring to life the University-wide strategy *Growing Esteem* and reinforce the University of Melbourne's position as one of the best in the world. Investment in new infrastructure, strengthening industry engagement and growing the size and diversity of our staff and student base to drive innovation and develop the transformative technologies of the future are all fundamental principles underpinning MSE 2025.

School of Electrical and Mechanical and Infrastructure Engineering

The School of Electrical, Mechanical and Infrastructure Engineering undertakes teaching and research across a range of disciplines that are internationally recognised for their contribution to fundamental research. It has a number of well-established industry linkages and international partnerships. It is building a vibrant profile of interdisciplinary research, working with industry with an aim to contribute to society. It offers a comprehensive range of accredited Masters of Engineering and Master of Information Technology programs taught through the Electrical, Mechanical and Infrastructure departments as well as professional Masters programs. It has a substantial cohort of research higher degree students. The School's aim is to attract and retain outstanding staff. The School is highly supportive of increasing the number of female staff.

Position Summary

The Department of Infrastructure Engineering in the School of Electrical, Mechanical and Infrastructure Engineering is seeking to appoint a Senior Lecturer or Associate Professor in Geomatics, with the aim to further strengthen the discipline team's expertise and to broaden its academic network and industry engagement.

The department is looking for a candidate complementing the young and dynamic Geomatics team's expertise in any of the three areas of *measurement science*, *spatial data infrastructure and land administration*, and *geographic information science*. Example areas of the desired research profile include but are not limited to real-time or indoor/underground positioning, autonomous 3D/4D sensing, digital twins, land administration, spatial analysis and artificial intelligence, or spatial information visualization. The candidate will significantly contribute to one of our broad engagements in future digital infrastructure, urban land administration systems, autonomous systems platforms, or spatially intelligent mobility. You will thus have the opportunity to shape the spatially-enabled, sustainable development of society.

You will, independently and as a member of the team, work on all four pillars of an academic career by pursuing internationally leading research, teaching and teaching innovation, engagement with industry and partner institutions, and taking on leadership roles within the University. You should be passionate about research and teaching. In research, you should be able to develop an internationally recognized and innovative research portfolio, as well as establish funding streams to support it. You should be able to contribute to, and in time lead, larger research initiatives within and beyond the department. You should thus be able to significantly contribute towards realizing the Melbourne School of Engineering's industry engagement targets. In teaching, you should be able to teach Australia's best students at both undergraduate and Masters' level, and to contribute to the innovation of the curriculum within the Geomatics, surveying and mapping and related disciplines.

You will join a discipline team that has global recognition in the academic communities of the three respective areas of Geomatics, and offers accredited education programs in spatial engineering and IT. The Geomatics team is deeply embedded in the Melbourne School of Engineering's interdisciplinary research platforms on infrastructure, data and automation, transport, water, land administration, energy, construction, and safety.

The Melbourne School of Engineering is strongly committed to supporting diversity and flexibility in the workplace. Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position.

The University seeks to increase the diversity of the workforce and the representation of women in areas they have been traditionally underrepresented. Consistent with this, the Melbourne School of Engineering is seeking to increase the representation of women in the academic workforce across engineering disciplines. Under a Special Measure, under Section 12 (1) of the Equal Opportunity Act 2010 (Vic) the School is seeking to lift the representation of women from 20% in 2014 to at least 25% over the next 5 years, and strongly encourages applications from suitably qualified female candidates.

1. Selection Criteria

1.1. ESSENTIAL

- A PhD or equivalent in Geomatics, surveying or a cognate discipline;

- A demonstrated track record of high-quality research, teaching and scholarship in Geomatics or related discipline;
- A track record in attracting research funding from competitive grant agencies and other sources, including industry, commensurate with appointment level;
- Experience with undertaking collaborative research projects as part of a team across institutions and/or disciplines;
- A track record of engaging industry, government and/or the community in teaching;
- Demonstrated ability to teach effectively, including through design and project studios;
- Experience in curriculum development and implementation at undergraduate and postgraduate level that will maintain the home Department's programs at the highest international standards;
- Excellent communication and interpersonal skills to engage with industry, government, research groups, diverse student cohorts and a variety of other stakeholders;
- Exhibited commitment to the highest standards of scientific and ethical integrity.

1.2. DESIRABLE

- Capacity and a track record of leadership in the international research community, in outreach and engagement with industry, and within the university, including leadership of interdisciplinary teams, and effective management of research and staff;
- Demonstrated leadership and service to relevant domestic and international academic associations, journals and professional bodies.

An assessment of the level of the appointment will depend on the maturity of the record of the candidate. According to the maturity, also the performance expectations of the levels differ significantly.

2. Key Responsibilities

Level C / Level D academics will, independently and as a member of the team, work on all four pillars of an academic career by pursuing internationally leading research, teaching and teaching innovation, engagement with industry and other partner institutions, and taking on leadership roles within the University.

2.1. RESEARCH

- Build and sustain strong fundamental and applied research activities, with a focus on interdisciplinary activities where appropriate;
- Obtain significant research funding from sources outside the University;
- Publish in top-tiered refereed journals, books or monographs, reports and refereed conference proceedings;
- Participate in collaborative partnership relating to research with other educational bodies or institutions.
- Lead a research program and attract high calibre students;
- Foster collaborations with other scientists to develop a multidisciplinary approach to research;

- Establish national and international links with key academics and industry organizations.

2.2. TEACHING AND LEARNING

- Develop and enhance teaching programs and methods to provide rational and cohesive courses for undergraduate and postgraduate students at the highest international level;
- Contribute to the development and reviews of the curriculum in Geomatics;
- Develop and innovate high quality subject materials and methodologies, including project-based and field-based learning and the use of web resources as appropriate;
- Coordinate and teach subjects and courses as required by the Head of Department of Infrastructure Engineering, in line with Melbourne School of Engineering workload models and Subject Evaluation Survey expectations;
- Identify, attract quality coursework and research students, and provide quality student consultation that fosters their learning.

2.3. ENGAGEMENT

- Work actively with departmental industry advisory groups and external industry bodies to ensure a productive relationship between the University and the community;
- Actively participate and lead professional activities including the conduct and dissemination of research, publication, membership of committees and consultancies;
- Engage in knowledge transfer and community activities beyond the university;
- Engage in professional development in your area and maintain knowledge of current research, resources and practice in your field.

2.4. LEADERSHIP AND SERVICE

- Make original and innovative contributions to scholarship, research and teaching in Geomatics;
- Supervise both undergraduate and graduate students and play a significant role in research projects including, where appropriate, leadership of a research team;
- Foster collaborations with other scientists to develop a multidisciplinary approach to research.
- Make a significant contribution to, and advancement of the profession/discipline;
- Make a significant contribution to the governance and collegial life inside and outside of the Melbourne School of Engineering and a significant role in knowledge transfer and community engagement;
- Contribute to strategic planning and policy decision making processes by actively participating in planning or committee work;
- Liaise with others in the university to develop a collaborative approach to enhance the educational and research programs of the Melbourne School of Engineering;
- Take a leading role in the department to actively foster and participate in industry liaison activities consistent with the Department of Infrastructure Engineering's business plan;
- Drive and lead departmental committees and/or projects as required;
- Participate in administrative functions as required;
- Participate in industry liaison activities as arranged by the department;

- Foster academic achievement in others, by setting an example and identify and exploit new opportunities in education, research and the provision of services for the benefit of the discipline;
- Foster academic achievement in others and identify and exploit new opportunities in education, research and the provision of services;
- Provide university leadership in the civil-engineering-focused education programs;
- Create a harmonious workplace environment that is conducive to productivity, promotes creativity and rewards and recognises individual and group achievement;
- Encourage and coach staff and research students to publish in top tiered refereed journals, books or monographs, reports and refereed conference proceedings;
- Foster excellence in research and teaching and develop best practice standards for the Department.

2.5. OTHER

- Perform other tasks as requested by the supervisor or the Head of the Department;
- Undertake Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 5.